

PRSS3/Trypsin-3 Protein, Human (HEK293, His)

Cat. No.:	HY-P75985
Synonyms:	Trypsin-3; Mesotrypsin; Serine protease 3; PRSS4; TRY3; TRY4
Species:	Human
Source:	HEK293
Accession:	P35030-3 (V16-S247)
Gene ID:	5646
Molecular Weight:	Approximately 33 kDa

PROPERTIES

AA Sequence	<p>V P F D D D D K I V G G Y T C E E N S L P Y Q V S L N S G S H F C G G S L I S E</p> <p>Q W V V S A A H C Y K T R I Q V R L G E H N I K V L E G N E Q F I N A A K I I R</p> <p>H P K Y N R D T L D N D I M L I K L S S P A V I N A R V S T I S L P T T P P A A</p> <p>G T E C L I S G W G N T L S F G A D Y P D E L K C L D A P V L T Q A E C K A S Y</p> <p>P G K I T N S M F C V G F L E G G K D S C Q R D S G G P V V C N G Q L Q G V V S</p> <p>W G H G C A W K N R P G V Y T K V Y N Y V D W I K D T I A A N S</p>
Biological Activity	Measured by its ability to cleave a peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH ₂ . Read at excitation and emission wavelengths of 320 nm and 405 nm. The specific activity is 3774.8148 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	PRSS3, also known as Trypsin-3, is a digestive protease with a distinct substrate specificity, as it cleaves proteins preferentially after an Arginine residue. This trypsin-like enzyme plays a crucial role in the digestive process by breaking
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down dietary proteins into smaller peptides. Notably, PRSS3 exhibits proteolytic activity towards Kunitz-type trypsin inhibitors, suggesting its involvement in regulatory interactions with endogenous protease inhibitors. The enzyme's ability to cleave proteins at specific sites underscores its importance in protein digestion, and its interactions with trypsin inhibitors highlight its role in the intricate balance of protease activity within cellular environments. Ongoing research may reveal further insights into the physiological implications and regulatory functions of PRSS3 in digestive physiology.

Caution: Product has not been fully validated for medical applications. For research use only.

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